CLAIMS

What is claimed is:

1. An apparatus, comprising:
a transaction facilitator;
a split-completion transaction arbiter coupled to the transaction facilitator; and
a split-completion buffer coupled to the transaction facilitator.

2. The apparatus of claim 1, further comprising:
a split-completion commitment limit register;
a total outstanding split-completion register; and
a next split-completion size register.

3. The apparatus of claim 1, further comprising more than one bus coupled to said transaction facilitator.

4. The apparatus of claim 1, wherein said transaction facilitator comprises an initiator and a completer.

5. The apparatus of claim 1, wherein said split-completion arbiter comprises a fairness determiner.

6. The apparatus of claim 5, wherein the fairness determiner comprises a round robin determiner.

7. The apparatus of claim 5, wherein the fairness determiner comprises a fixed-priority determiner.

8. The apparatus of claim 1, wherein said split-completion transaction arbiter comprises a latency counter coupled to said transaction facilitator.

9. The apparatus of claim 1, wherein said split-completion buffer comprises:
a first-bus buffer coupled to a first split-completion transaction arbiter; and

a second-bus buffer coupled to a second split-completion transaction arbiter.

10. A method, comprising:

receiving a transaction;

storing a split-completion for the transaction;

arbitrating the split-completion; and

initiating a split-completion transaction in response to said arbitrating the split-completion.

11. The method of claim 10 further comprising responding to the transaction with a split response.

12. The method of claim 10 wherein said receiving a transaction comprises receiving part of an initiated sequence of transactions.

13. The method of claim 10 wherein said storing a split-completion for the transaction comprises storing a sequence identification and a command identification.

14. The method of claim 13 wherein said storing a split-completion for the transaction further comprises storing data corresponding to the command identification.

15. The method of claim 10 wherein said arbitrating the split-completion comprises determining a ranking of a split-completion transaction for the split-completion.

16. The method of claim 10 wherein said arbitrating the split-completion comprises limiting the duration of a split-completion transaction for the split-completion.

17. The method of claim 10 wherein said initiating a split-completion transaction comprises transmitting a completion message.

18. The method of claim 10 wherein said initiating a split-completion transaction comprises forwarding a split-completion.

19. A system, comprising:

a requester;

an arbiter bridge coupled to said requester;

a microprocessor coupled to said arbiter bridge; and

a target device coupled to said arbiter bridge.

20. The system of claim 19, further comprising a bus arbiter coupled to said arbiter bridge.

21. The system of claim 19, wherein said requester comprises a second microprocessor coupled to said arbiter bridge.

22. The system of claim 19, wherein said requester comprises:

a sequence initiator coupled to said arbiter bridge; and

a sequence requester coupled to said arbiter bridge.

23. The system of claim 19, wherein said arbiter bridge comprises:

a transaction facilitator;

a split-completion transaction arbiter coupled to the transaction facilitator; and

a split-completion buffer coupled to the transaction facilitator.

24. The system of claim 19, wherein said target device comprises a memory device coupled to said arbiter bridge.

25. A machine-readable medium containing instructions, which when executed by a machine, cause said machine to perform operations, comprising:

receiving a transaction;

storing a split-completion for the transaction;

arbitrating the split-completion; and

initiating a split-completion transaction in response to said arbitrating the split-completion.

26. The machine-readable medium of claim 25 wherein said receiving a transaction comprises receiving part of an initiated sequence of transactions.

27. The machine-readable medium of claim 25 wherein said storing a split-completion for the transaction comprises storing a sequence identification and a command identification.

28. The machine-readable medium of claim 25 wherein said arbitrating the split-completion comprises determining a ranking of a split-completion transaction for the split-completion.

29. The machine-readable medium of claim 25 wherein said initiating a split-completion transaction comprises transmitting a completion message.